

## ABSTRACT OF THE DISCLOSURE

Upon processing a visible light image signal and infrared image signal respectively obtained by  
5 illuminating a transparent document with light beams coming from a visible light lamp for mainly emitting visible light and an infrared lamp for mainly emitting infrared light, and photoelectrically converting optical images of the transparent document, a histogram  
10 is generated on the basis of the infrared image signal, a threshold value is calculated based on the histogram, and infrared image signal components equal to or smaller than the threshold value are extracted by comparing the calculated threshold value and infrared  
15 image signal components. Visible light image signal components corresponding to the extracted infrared image signal components are interpolated using surrounding visible light image signal components.